

**I. Wakabayashi Does Not Teach All of the Features the Office Alleges it to Teach**

The Office Action fails in its attempt to map the features disclosed in Wakabayashi to those recited in, for example, claim 1. Specifically, the Office Action indicates that the heat radiating member (element 60 of Wakabayashi) is considered to include a circuit arrangement surface having a circuit arrangement region, which is indicated as element 61. The Office Action goes on to indicate that the disclosed module comprises a power circuit section (element 33, which is a combination of elements 60 and 54) including at least one electronic part arranged in the circuit arrangement region. For the at least one electronic part, the Office Action cites elements 57, 58 and 100. Elements 57, 58 and 100 are depicted as mounted within the power connect-incorporating casing 54 to which a heatsink 60 is mounted on the lower side. As such, Wakabayashi does not disclose, nor can it reasonably be considered to have suggested, the combination of features' a heat radiating member including a circuit arrangement surface having a circuit arrangement region, and a power circuit section including at least one electronic part and arranged in the circuit arrangement region, as is recited, among other features, in independent claim 1.

The Office Action, in fact, on page 4, appears to indicate that the bottom portion of the power connector-incorporating casing 54 is interpreted to correspond to an insulating layer disposed between the heat radiating member and the power circuit section (see the paragraphs beginning "Regarding claim 9," and "Regarding claim 10," on page 4 of the Office Action). As such, the Office Action is internally incongruous regarding elements 57, 58 and 100 being arranged in the circuit arrangement region of the heat radiating member when they are clearly depicted, and described, as being "mounted within the power-incorporating casing 54" (col. 9, lines 61 and 62). Specifically, these elements appear to be arranged on an unannotated bottom portion of the power connect-incorporating casing 54 that the Office

Action indicates corresponds to "an insulating layer disposed between the heat radiating member and the power circuit section (see layer between elements 60 and 61, Fig. 1)."

The Office Action takes an equally strained approach, and an unreasonably broad view of the disclosure of Wakabayashi, in mapping all of the individual elements disclosed in Wakabayashi to features positively recited in the claims depending from claim 1. For example, features not adequately shown as corresponding to the recited claim features include: the hood recited in claim 3; the through hole communicating a side of the heat radiating member and a side of the hood recited in claim 4; another through hole communicating the side of the heat radiating member and the recess portion recited in claim 5; a second portion of the bus bar standing up from the circuit arrangement surface and inserted into the hood recited in claim 6; a second groove, a third portion of the bus bar extending through the second groove recited in claim 7; and wherein the bus bar protrudes from at least one of side edges of the power circuit section in outward directions recited in claim 8.

**II. Wakabayashi Cannot Reasonably Be Considered to Suggest Re-Incorporating Packings as Disclosed in the Prior Art**

In response to Applicants' previous arguments that Wakabayashi does not suggest to include a seal in the disclosed invention, the Office Action selectively ignores teachings of the Wakabayashi reference regarding the inclusion of separate seal members. The Office Action indicates that "[t]he Examiner has reviewed the Wakabayashi reference and does not see where it teaches away from using the seal." Wakabayashi specifically states the following:

(1) "And besides, the packing 22 is used between the lid 20 and the casing 2, and also the backing 23 is used between the casing 2 and the heatsink 21, and this increases the

production cost" (col. 2, lines 20-23). This is indicated as a shortfall in the prior art (see Fig. 15) that the invention in Wakabayashi seeks to overcome.

(2) "In the invention, the welding portions which can be joined together by ultrasonic welding, or the welding portions which can be joined together by vibration welding, are formed respectively at those portions of the power portion and the control portion which are to be combined together. Therefore, the waterproof effect and the joining can both be effected without the use of a packing or the like" (col. 5, lines 50-56). Again here, Wakabayashi clearly indicates it is the intent of the disclosed invention to do away with any necessity for "a packing or the like."

(3) In the invention, a heatsink for radiating heat from the power portion is mounted on the power portion; a recess for receiving the terminals of the power parts and the bus bars is formed in the heatsink; and a resin is filled in the recess by resin potting, so that the terminals and the power parts and the bus bars are sealed in the resin" (col. 6, lines 13-19). As such, the assertion made above that the heatsink 60 is a separate unit mounted to the power portion is further ratified. Also, any attempt to assert that one of ordinary skill in the art, given the teachings of Wakabayashi, would have re-introduced seals amounts to a "belt-and-suspenders" assertion. When the specific stated objective of Wakabayashi is to overcome the complexity in prior art structures, *i.e.*, "an assembling operation can be effected easily," it is unreasonable to assert that one of ordinary skill in the art would have added a belt (seals) to an invention when no shortfall in the use of the suspenders (resin for waterproofing) is indicated.

### **III. The Purported Motivation to Modify the Wakabayashi Invention Fails to Meet the Standard Required for Such a Showing**

As apparent motivation for re-introduction of seals, the Office Action, on page 6, states "Examiner notes that it is old and routine to use a seal anywhere two portions are joined

and an airtight or impermeable configuration is desired. In this art, seals are also often used to seal any gaps against the passage of EMI." Thus, the Office Action goes on to state that the Examiner "believes that use of seals and their benefits are well known to those of ordinary skill." This conclusion, to the extent it may be true, is not germane to the discussion. The Office Action, on page 3, states that "it would have been obvious to one of ordinary skill in the art to have included and arranged the seal members taught by the admitted prior art in the modulus taught by Wakabayashi in order to provide an effective waterproof seal for the module between the casing and the heat radiating member." This conclusion is belied by the totality of the discussion provided in Wakabayashi, as discussed above and as follows. Specifically, Wakabayashi states "the power connector-incorporating casing 54 and the heat sink 60 are bonded together by a resin adhesive ... a resin is filled, and solidified or cured to form a resin layer 102, thereby sealing the power modules 61 and the electrical connection portions 100." Wakabayashi is thus plain in (1) showing that any necessary sealing of the disclosed components is accomplished by use of resin layers or welding, and (2) given this disclosure, it is unreasonable to conclude that one of ordinary skill in the art would have been motivated to re-introduce seal members in order to provide an effective waterproof seal for the module between the casing and the heat radiating member.

MPEP §2143.01 instructs that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP §2143.01 further instructs that "[a]lthough a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.'" *See also In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Applicant respectfully submits that the rejection of at least independent claim 1 is improper in view of at least MPEP §2143.01 because the Office Action lacks the required specific evidence of a teaching, suggestion or motivation in the

prior art for one of ordinary skill to combine the references. The conclusory statements made in this regard, to include the reference to EMI, do not meet this standard.

In summary, reading the Wakabayashi reference in its entirety, regardless of what is "known" regarding the use of seals in the prior art, does not lead to a conclusion that one of ordinary skill in the art would have been motivated to re-introduce seals into the Wakabayashi invention in order to further improve any waterproofing capability. Further, Wakabayashi indicates no teaching, suggestion or motivation regarding why one of ordinary skill in the art, given the totality of the teachings of the reference, may have been motivated to make such a modification. Lastly, a reasonable reading of the Wakabayashi reference, in total, indicates at least a suggestion, if not an explicit disclosure, to specifically do away with packings. As such, any conclusion to the contrary is unreasonable and unsupportable on the basis of the specific explicit disclosures included in the Wakabayashi reference.

#### **IV. Conclusion**

For at least the reasons indicated above, the Office Action fails to show how Wakabayashi can reasonably be considered to render obvious the subject matter of the pending claims because: (1) the Office Action mixes references to specific elements disclosed in Wakabayashi for what they are alleged to suggest regarding the subject matter of the pending claims; (2) ignores specific references to removal of a seal member; and (3) provides inadequate objective evidence of a suggestion, motivation or teaching in the prior art regarding inclusion of the seal member, particularly where the alleged benefits that the inclusion of such seal member may purportedly inure are otherwise positively stated as being met by the structure of the disclosed invention.

\* \* \*

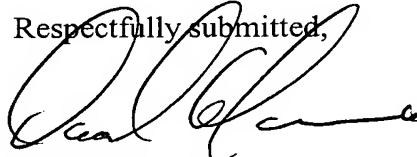
Based on the above, Wakabayashi cannot reasonably be considered to have suggested the combination of all of the features recited in at least independent claim 1. Further, because

independent claims 13 and 19 include at least the same distinguishing features, the combinations of all of the features recited in independent claims 13 and 19 are also neither taught, nor would have been suggested, by Wakabayashi for at least the reasons discussed above. Additionally, Wakabayashi would not have suggested the combinations of features recited in claims 2-12, 14-18 and 20 for at least the respective dependence of these claims on independent claims 1, 13 and 19 , as well as for the patentably distinct subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over Wakabayashi are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,  
  
James A. Oliff  
Registration No. 27,075

Daniel A. Tanner, III  
Registration No. 54,734

JAO:DAT/cfr

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**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

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